



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/594,528

07/30/2007

Takakazu Yano

01165.0964

1581

22852 7590 12/05/2008
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER
LLP
901 NEW YORK AVENUE, NW
WASHINGTON, DC 20001-4413

EXAMINER

NGUYEN, SANG H

ART UNIT

PAPER NUMBER

2886

MAIL DATE

DELIVERY MODE

12/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,528	Applicant(s) YANO ET AL.	
	Examiner Sang Nguyen	Art Unit 2886	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9, 11, 12 and 15-22 is/are pending in the application.
- 4a) Of the above claim(s) 13-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9, 11, 12 and 15-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/30/07 and 09/28/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I (claims 2-9, 11-2, and 15-22) in the reply filed on 09/10/08 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 07/30/07 and 09/28/06 has been entered. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Response to Amendment

Applicant's response to amendment with election filed on 09/10/08 has been entered. It is noted that the application contains claims 2-9 and 11-22 and claims 1 and 10 have been canceled by the amendment filed on 09/28/06. Now the application are pending claims 2-9, 11-12, and 15-22 and non-elected claims 13-14 have been withdrawn.

Claim Objections

Claim 9 line 2 is objected to because of the following informalities: because claim 1 has been canceled filed on 09/28/2006 by the pre-amendment, however, claim

Art Unit: 2886

9 line 2 dependence on claim 1 is not clear. For the purpose examination, the number "1" in the claim 9 line 2 should change to -- 2-- . Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-12, 15, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Bedell et al (U.S. Patent No. 4,908,676).

Regarding claim 15; Bedell et al discloses an optical measurement apparatus comprising:

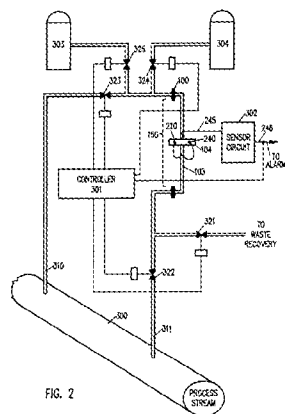
an ion-exchange resin (col.10 lines 34-46 and col.12 lines 32-34; and col.22 lines 1-17);

a synthetic absorbent (col.5 line 66 to col.4 line16);

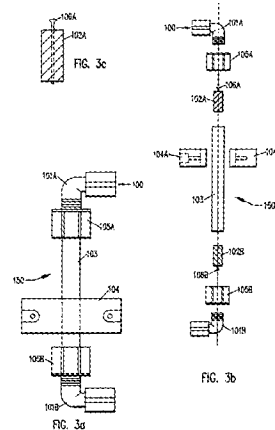
an optical measurement section (i.e., analyte detector [150 of figure 2] and a sensor [204 of figure 2] having a light source [210 of figure 2] and a light detector [240 of figure 2]) for measuring the concentration of an optically active substance in a sample based on optical characteristics of said optically active substance (i.e., detection column [103 of figures 2 and 3a-3b] and col.7 line 14-col.8 line 65) after said sample is passed through said ion-exchange resin (col.10 lines 34-46 and col.12 lines 32-34)and said synthetic absorbent(col.5 line 66 to col.4 line16); and

a control section (301 of figure 2) for continuously monitoring a measurement result from said optical measurement section (150, 104 of figure 2) . see figures 1-9.

U.S. Patent Mar. 13, 1990 Sheet 2 of 7 4,908,676



U.S. Patent Mar. 13, 1990 Sheet 3 of 7 4,908,676



Regarding claim 11; Bedell et al discloses said ion-exchange resin is filled into a column (103 of figure 2) having a transparent window (col.7 lines 39-40).

Regarding claim 12; Bedel et al discloses further comprising a detecting section for detecting the color of said ion-exchange resin (col.22 lines 6-17).

Regarding claim 19; Bedell et al discloses said ion-exchange resin is an anion-exchange resin, a mixed-bed ion-exchange resin, or a cation-exchange resin (col.2 line 67 to col.3 line 8 and col.13 lines 52-61).

Regarding claim 20; Bedell et al discloses further comprising a regenerating section (303, 304 of figure 2) for regenerating said ion-exchange resin col.10 lines 34-46 and col.12 lines 32-34; and col.22 lines 1-17) with a regenerating solution (i.e., detection column having an aqueous solutions [103 of figures 2 and 3a-3b]), and

Art Unit: 2886

wherein said control section (301 of figure 2) makes a determination, based on the monitoring of said measurement result, as to the degree to which said ion-exchange resin has been regenerated by said regenerating solution (abstract and col.1 lines 7-12).

Regarding claim 21; Bedell et al discloses said control section (301 of figure 2) controls the amount of said regenerating solution (i.e., detection column having an aqueous solutions [103 of figures 2 and 3a-3b]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 2-9, 16-18, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bedell et al (U.S. Patent No. 4,908,676) in view of Deguchi et al (U.S. Patent No. 5,624,544).

Art Unit: 2886

Regarding claims 2-3 and 8-9; Bedell et al discloses all of features of claimed invention except for further comprising a regenerating section for regenerating or cleaning said ion-exchange resin, wherein said regenerating section regenerates said ion-exchange resin with alkaline ionized water and said ion-exchange resin is a weak base ion-exchange resin. However, Deguchi et al teaches that it is known in the art to provide a regenerating section for regenerating or cleaning said ion-exchange resin (col.11 line 55 to col.12 line 5), wherein said regenerating section regenerates said ion-exchange resin with alkaline ionized water (col.1 lines 33-40 and col.2 lines 30-40 and 57-60) and said ion-exchange resin is a weak base ion-exchange resin. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the optical measurement apparatus of Bedell et al with a regenerating section for regenerating or cleaning said ion-exchange resin, wherein said regenerating section regenerates said ion-exchange resin with alkaline ionized water and said ion-exchange resin is a weak base ion-exchange resin as taught by Deguchi et al for the purpose of cleaning solutions for clothes, dishes, or toilet with stable maintains PH value for a long period.

Regarding claim 4; Bedell et al discloses all of features of claimed invention except for said regenerating section includes an alkaline ionized water producing section for producing said alkaline ionized water from tap water. However, Deguchi et al teaches that it is known in the art to provide said regenerating section includes an alkaline ionized water producing section for producing said alkaline ionized water from tap water (col.col.8 lines 55-65). It would have been obvious to one having ordinary skill

Art Unit: 2886

in the art at the time the invention was made to combine the optical measurement apparatus of Bedell et al with said regenerating section includes an alkaline ionized water producing section for producing said alkaline ionized water from tap water as taught by Deguchi et al for the purpose of cleaning solutions for clothes, dishes, or toilet with stable maintains PH value for a long period.

Regarding claims 5-7; Bedell et al discloses all of features of claimed invention except for said regenerating section regenerates said ion-exchange resin with acid water, wherein said regenerating section includes an acid water producing section for producing said acid water from tap water. However, Deguchi et al teaches that it is known in the art to provide said regenerating section regenerates said ion-exchange resin with acid water (abstract), wherein said regenerating section includes an acid water producing section for producing said acid water from tap water (col.8 lines 55-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the optical measurement apparatus of Bedell et al with said regenerating section regenerates said ion-exchange resin with acid water, wherein said regenerating section includes an acid water producing section for producing said acid water from tap water as taught by Deguchi et al for the purpose of cleaning solutions for clothes, dishes, or toilet with stable maintains PH value for a long period.

Regarding claim 16; Bedell et al discloses said control section (301 of figure 2) computes the concentration of said optically active substance by using the measurement result (col.8 lines 10-50) obtained when said measurement result has settled to a steady-state value (figures 7-9 and col.1 lines 61-65). It is noted that “when

Art Unit: 2886

said measurement result has settled to a steady-state value", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As the United Supreme Court held in *KSR Int'l Co. v. Teleflex Inc. et al.*

Regarding claim 17; Bedell et al discloses said control section (301 of figure 2) makes a determination, based on the monitoring of said measurement result (col.8 lines 10-50), as to whether ion-exchange ability of said ion-exchange resin has become saturated or not. It is noted that "as to whether ion-exchange ability of said ion-exchange resin has become saturated or not", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. As the United Supreme Court held in *KSR Int'l Co. v. Teleflex Inc. et al.*

Regarding claim 18; Bedell et al discloses all of features of claimed invention except for said optically active substance is urine sugar. It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine apparatus of Bedeel et al with said optically active substance is urine sugar, since it has held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Art Unit: 2886

Regarding claim 22; Bedell et al discloses all of features of claimed invention except for said optical measurement apparatus is installed in a toilet seat or a toilet bowl. However, Deguchi et al teaches that it is known in the art to provide said optical measurement apparatus is installed in a toilet seat or a toilet bowl (col.12 lines 1-3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the optical measurement apparatus of Bedell et al with said optical measurement apparatus is installed in a toilet seat or a toilet bowl as taught by Deguchi et al for the purpose of cleaning solutions for clothes, dishes, or toilet with stable maintains PH value for a long period.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Meserol et al (2004/0256329); Jangbarwala (2003/0206846); Suzuki et al (7261816); Jangbarwala (6835295); Jolly et al (6682934); Shingai et al (6414182); Shiota et al (6294073); or Durst et al (6086478).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on (571) 272-2800 ext. 86. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2886

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 2, 2008

/Sang Nguyen/
Primary Examiner, Art Unit 2886